

**From:** [Jay Field](#)  
**To:** [Eric Blischke/R10/USEPA/US@EPA](#)  
**Cc:** [Burt Shephard/R10/USEPA/US@EPA](#); [Chip Humphrey/R10/USEPA/US@EPA](#); [Jennifer L Peterson; jeremy\\_buck@fws.gov](#); [anderson.jim@deq.state.or.us](#); [Joe Goulet/R10/USEPA/US@EPA](#); [MCCLINCY Matt; POULSEN Mike](#); [Robert.Neely@noaa.gov](#); [csmith@parametrix.com](#); [Robert Gensemer; sheila@ridolfi.com](#); [Benjamin Shorr; Mary.Baker@noaa.gov](#); [David.G.Farrer@state.or.us](#); [dallen@stratusconsulting.com](#); [jpeers@stratusconsulting.com](#); [Bob Dexter; JMalek@parametrix.com](#); [Nancy.Munn@noaa.gov](#); [Greg.Gervais@noaa.gov](#)  
**Subject:** Re: Fw: reference stations  
**Date:** 11/23/2008 02:48 PM  
**Attachments:** [PH\\_Tox\\_RefStations\\_081123.xls](#)

---

Eric,  
Based on the list of reference stations in your email and the approach recommended by MacDonald and Landrum to determine toxicity thresholds (5th percentile of reference station responses), the attached file shows the stations toxicity results for the 4 test endpoints and the thresholds (as determined by Excel's percentile calculation). Are these thresholds consistent with your intended approach?  
Jay

Blischke.Eric@epamail.epa.gov wrote:

> Here is where we landed on the selection of reference stations for the  
> benthic evaluation. We will be confirming that this meets our  
> agreements. Let me know if you have any questions.

> Thanks, Eric

> ----- Forwarded by Eric Blischke/R10/USEPA/US on 11/14/2008 01:03 PM  
> -----

>  
> "Jennifer  
> Woronets"  
> <jworonets@anchorenv.com>  
>  
> 11/14/2008 11:41  
> AM  
>  
> Eric Blischke/R10/USEPA/US@EPA, To  
> Chip Humphrey/R10/USEPA/US@EPA  
>  
> cc  
> <ANDERSON.Jim@deq.state.or.us>,  
> <audiehuber@ctuir.com>, Eric  
> Blischke/R10/USEPA/US@EPA, "Bob  
> Wyatt" <rjw@nwnatural.com>,  
> <cunninghame@gorge.net>,  
> <erin.madden@gmail.com>, Chip  
> Humphrey/R10/USEPA/US@EPA, "JD  
> Williams" <jdw@jdw-law.net>,  
> "Jennifer Peers"  
> <jpeers@stratusconsulting.com>,  
> "Jennifer Woronets"  
> <jworonets@anchorenv.com>, "Julie  
> Fox" <jfox@anchorenv.com>, "Julie  
> Weis" <jweis@hk-law.com>, "Keith  
> Pine" <kpine@anchorenv.com>,  
> Kristine Koch/R10/USEPA/US@EPA,  
> <lisa.bluelake@grandronde.org>,  
> "MCCLINCY Matt"  
> <MCCLINCY.Matt@deq.state.or.us>,  
> "McKenna, Jim"  
> <Jim.McKenna@portofportland.com>,  
> "Michael Karnosh"  
> <michael.karnosh@grandronde.org>,  
> "Rick Applegate"  
> <RICKA@BES.CI.PORTLAND.OR.US>,  
> "Robert Neely"  
> <Robert.Neely@noaa.gov>, "Rose  
> Longoria" <rose@yakama.com>,  
> <sheila@ridolfi.com>, "Bob Wyatt"  
> <rjw@nwnatural.com>,  
> <david.ashton@portofportland.com>  
> , <wolffg@plu.edu>, "J Betz"  
> <jbetz@ci.portland.or.us>,  
> "Jennifer Woronets"  
> <jworonets@anchorenv.com>,  
> <Jim.McKenna@portofportland.com>,  
> "Patty Dost \ (Schwabe\)"  
> <Pdost@Schwabe.com>, "Rick  
> Applegate"  
> <RICKA@BES.CI.PORTLAND.OR.US>,  
> "Keith Pine"  
> <kpine@anchorenv.com>, "Jennifer  
> Woronets"  
> <jworonets@anchorenv.com>, "John  
> Toll" <johnt@windwardenv.com>  
> Subject  
> FW: reference stations

> Eric and Chip -

>  
> Please see below and attached revised criteria for identifying reference  
> stations and revised map of reference envelope stations.  
>  
> Thank you,  
> Jen Woronets  
> Anchor Environmental, LLC  
> 6650 SW Redwood Lane, Suite 333  
> Portland, OR 97224  
> 503-670-1108 Phone Ext 24  
> 503-670-1128 Fax  
> ü Please consider the environment before printing this email.  
>  
>  
> From: John Toll [mailto:johnt@windwardenv.com]  
> Sent: Friday, November 14, 2008 10:14 AM  
> To: Bob Wyatt  
> Cc: Jennifer Woronets; Keith Pine; Lisa Saban; Helle B. Andersen  
> Subject: reference stations  
>  
> Bob - Attached please find the revised criteria for identifying  
> reference stations, and the revised map of reference envelope stations.  
> The selection criteria were revised based on requests made by Eric  
> Blischke in a November 7, 2008 teleconference with Burt Shephard, Jim  
> McKenna and me.  
> We have applied the revised criteria to identify reference stations, and  
> modified the reference envelope accordingly. The revised list of  
> reference envelope stations is as follows:  
>  
>  
>  
> |-----+-----|  
> |G766 |U3C-1 |  
> |-----+-----|  
> |G767 |U3C-2 |  
> |-----+-----|  
> |G786a |U3C-3 |  
> |-----+-----|  
> |G788 |U4Q-1 |  
> |-----+-----|  
> |G788a |U4Q-2 |  
> |-----+-----|  
> |U1C-1 |U4Q-3 |  
> |-----+-----|  
> |U1C-2 |U5Q-1 |  
> |-----+-----|  
> |U2C-1 |U5Q-2 |  
> |-----+-----|  
> |U2C-3 |U5Q-3 |  
>  
>  
>  
> Three reference stations dropped out based on the revised screening  
> criteria. They are G786, U6TOC-1 and U6TOC-3. Two new stations  
> screened in. They are G786a and G788a.  
>  
> The LWG has made all of EPA's requested changes to the reference  
> criteria, so this should be the final set of reference envelope  
> stations. Once that is confirmed by EPA, the last outstanding issue for  
> defining the benthic interpretive approach will have been resolved.  
> Therefore, EPA should also be able to confirm that we are ready to  
> proceed with the benthic BERA.  
>  
> John  
>  
> John Toll, Ph.D.  
> Partner  
> Windward Environmental LLC  
> 200 West Mercer Street, Suite 401  
> Seattle, WA 98119-3958  
> (206) 812-5433  
> (206) 913-3292 (cell)  
> www.windwardenv.com  
>  
> The information contained in this e-mail message is intended only for  
> the personal and confidential use of the recipient named above. This  
> message may be an attorney-client communication and as such is  
> privileged and confidential. If the reader of this message is not the  
> recipient named above or an agent responsible for delivering it to the  
> intended recipient, the reader is hereby notified that this message has  
> been received in error and that any review, dissemination, copying or  
> distribution of this message is strictly prohibited. If you have  
> received this message in error, please notify the sender immediately,  
> and delete this message.  
> (See attached file: 3518\_Bioassay locs meeting reference  
> criteria\_LSM\_revised 111208.pdf)(See attached file: Final Memo Criteria  
> for Identifying Reference Sediment Samples.pdf)

--  
Jay Field  
Assessment and Restoration Division  
Office of Response and Restoration, NOAA  
7600 Sand Point Way NE  
Seattle, WA 98115-6349  
(P) 206-526-6404  
(F) 206-526-6865  
(E) jay.field@noaa.gov